

REMARKS

Claims 1-31 were present in the application at the time of the last Office Action-Final Rejection, mailed May 19, 2005. Of those claims, claims 1, 11 and 24 were independent claims.

In the last Office Action dependent claims 10, 14, 15 and 18-22 were allowed over the prior art, but were objected to as depending from rejected claims.

On the Form PTOL-328 which accompanied that Office Action it was indicated that claim 17 was rejected but no rejection was applied against that claim in the body of the action. **Clarification of the status of claim 17 is requested.**

In the last Office Action, the remaining claims were expressly rejected as follows:

1. Claims 1, 2, 4-7, 24, 25 and 28-31 were rejected as lacking novelty under 35 USC §102(b) over WEIS (1,471,989);

2. Claims 1-3, 6, 11-13, 16, 23, 24 and 26 were rejected as lacking novelty under 35 USC §102(b) over BLOOM (6,199,357); and

3. Claims 8, 9 and 27 were rejected as being obvious under 35 USC §103(a) over WEIS in view of GESSELL et al. (4,706,448).

Applicants wish to thank Examiner Nathan Mammen for the interview at the Patent and Trademark Office with applicants' undersigned attorney on July 13, 2005.

As discussed during the interview, combines for the harvesting of wheat, soybeans and other small grains typically have a rotating harvester reel which has a plurality of elongate curved pickup tines which move the crop to be harvested into the combine. In view of the rather severe operating environment in which these harvester reel pick up tines perform their function, they are subject to breakage. Once a considerable number of tines have been broken the efficiency of the operation of the harvester reel is impaired. To restore the efficiency the harvester must be stopped and the broken pickup tines replaced which is wasteful of time and effort, and places the combine out of service during the replacement. Moreover, during tine replacement in the past, a tool has typically been required to remove the broken tines from the reel and replace them with new replacement tines.

In the present invention the broken pickup tines may be easily and rapidly repaired without the need for tools or the need to remove the broken tine. This substantially reduces the time and effort necessary for repair and combine downtime, and the repair actually results in a stronger tine assembly than existed with the original tines.

These advantages are accomplished in the present invention by the provision of an elongate curved repair finger which has an elongate curved cavity extending in the direction of the elongation of the finger and which curved cavity receives the broken tine to effect the repair without the need to remove the broken tine from the reel.

Three sets of claims are currently in the application.

Claim 1 and its dependent claims are directed to the repair finger itself.

Claim 11 and its dependent claims are directed to the combination of a first finger (the one to be repaired) on the support shaft of a harvester reel and a second finger (the repair finger) having a cavity therein which receives at least a portion of the first finger, e.g. the combination that results when the repair finger is placed over the broken finger.

Finally, claim 24 and its dependent claims are directed to a method of repairing a broken harvester reel pickup tine finger.

As to the subcombination claim 1 and combination claim 11, the Examiner has taken the position that because the cavities of both WEIS and BLOOM are cylindrical, they are "curved" because the perimeter of a cylinder is curved.

During the interview, the Examiner suggested language which would call for the finger and cavity to have a "curved axis". However, applicants have concerns about the use of the term "axis" in the claims in two aspects. In a first aspect, the word "axis" does not appear in the specification as filed. And in a second important aspect, the dictionary definitions of "axis" include that it is "a straight line". See Exhibit A attached. Thus, the term "curved axis" is in direct conflict with the dictionary definitions of "axis".

In view of these concerns, claims 1 and 11 have been amended as set forth herein to call for an elongate hollow finger having an elongate cavity therein, and that the cavity is curved in the direction of its elongation. This is clearly shown in the drawings as originally filed. It is respectfully submitted that the use of

the term "elongate" and that "the cavity is curved in the direction of its elongation" is an accurate alternative to the use of the word "axis". The adjective "elongate" is defined as

stretched out: LENGTHENED; *esp*: having a form notably long in comparison to its width.

See Exhibit B attached. This language clearly defines over the straight cylindrical cavities of either WEIS or BLOOM which at best are curved only in a direction perpendicular to the direction of elongation instead of in the direction of elongation as claimed in claims 1 and 11.

As to the method claim 24, that claim calls for a "method of repairing a broken harvester reel pickup tine finger" by "positioning an elongate hollow finger having a cavity therein... so that at least a portion of the remaining portion of the broken finger extends into the cavity".

WEIS contains absolutely no disclosure or suggestion whatsoever of repairing anything and does not even disclose anything that is broken. The Examiner has taken the position in the last Office Action that the claimed "method would be inherent as the normal and logical manner in which the finger of the Weis '989 patent would be used." It is respectfully submitted that this position is unwarranted. There is no disclosure or suggestion in WEIS of any broken tine or the desire to repair a broken tine. The only purpose suggested by WEIS is "for converting a garden rake of sharp pronged or tooth type into a lawn rake of type adapted to gather leaves and grass cuttings without injury to the turf or the roots of the lawn grass." (lines 9-15) Moreover, WEIS states that his caps 13 are "of rubber, wood, or other material of relatively soft properties. . ." (lines 40-41) Such caps of soft materials would not likely be effective to repair a broken "harvester reel

pickup tine" in the method claimed. And, there is no showing of how such caps could be fastened to the relatively short broken tine. Accordingly, for these several reasons WEIS actually teaches away from repairing anything as set forth in method claim 24.

BLOOM does repair a broken harvester reel tine, but only by complete replacement of the broken tine with a new one, rather than retaining the broken tine and positioning it in the cavity of a repair finger which is slipped over the broken tine as in the claimed method. Moreover, the Examiner has offered no reason whatsoever why he continues to apply BLOOM to the claimed method, inherent function or otherwise.


For the above reasons, it is respectfully submitted that all of the claims remaining in the present application, claims 1 - 31, are in condition for allowance. Accordingly, favorable reconsideration and allowance are requested.

Respectfully submitted,

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or axemen; one that wields an ax; specif: a worker  
as ax to chop trees and logs for firewood or to

